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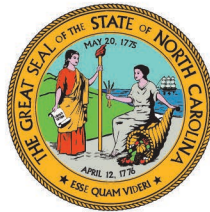
Governor

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Secretary

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NORTH CAROLINA
Environmental Quality

CRC-23-02

February 8, 2023

MEMORANDUM

TO: Coastal Resources Commission
FROM: Mike Lopazanski
SUBJECT: Proposed Amendments to 15A NCAC 7H .0305, 7H .0306, & 7H .0309 – Septic Tanks Siting and Replacement

At the last two CRC meetings, Staff and the Commission have discussed issues related to erosion-threatened oceanfront structures. In particular, the Division has recently encountered permitting questions and concerns related to the repair, replacement and relocation of on-site wastewater treatment systems and septic tanks on the public beach, where they are subject to repeated overwash and erosion damage that has resulted in several system failures and discharges over the past year.

In addition to the required CAMA permits that address oceanfront erosion, public trust, and other coastal resource concerns, you will recall from our discussions that the Department of Health and Human Services, Division of Environmental Health (DEH) also oversees a county's implementation of on-site wastewater treatment permits and septic tanks. Under DHHS rules, new or replacement systems must be 50 feet from mean high water on the oceanfront. Additionally, according to 15A NCAC 18A .1950 septic tank systems are not allowed in areas subject to frequent flooding unless designed and installed to be watertight and function during a ten-year storm. According to 15A NCAC 18A .1935, "areas subject to frequent flooding" means those areas inundated at a 10-year or less frequency and includes alluvial soils and areas subject to tidal or storm overwash. If a septic tank is no longer watertight, it must be serviced immediately.

Under your rules, while new septic systems are subject to oceanfront construction setbacks, previous DEQ policy dictated that replacement of an existing septic system in the same location is usually considered repair and therefore exempt from CAMA permitting. Relocation of an existing system, however, requires a CAMA permit but only requires that that the system shall not be relocated oceanward of the primary structure but is not required to be landward of the vegetation line and can be placed on the public trust dry sand beach.

Staff have proposed amendments to several rules regarding the relocation of septic tanks, including allowances for relocation within the oceanfront setback area under certain conditions and specific provisions for systems relocated with public funds versus non-public funds.



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After discussing the draft amendments at your November meeting, Staff suggested taking more time to review public comments and to address concerns about how the proposed rules would affect oceanfront homes impacted by storm events.

Based on further review and analysis, Staff are now proposing amendments to 7H .0305 Definition and Description of Landforms, 7H .0306 General Use Standards for Ocean Hazard Areas, and 7H .0309 Use Standard for Ocean Hazard Areas: Exceptions.

7H .0305 - the amendments would clarify that replacement of a septic tank or a subsurface disposal field seaward of the vegetation line or measurement line will require a CAMA permit. This amendment identifies these two components of a septic system as separate structures for repair/replace determinations. If either structure cannot be repaired in place, they will be subject to the replacement/relocation provisions of 7H .0306.

7H .0306 - As with other oceanfront structures, new septic tank systems must meet the erosion-rate-based setbacks that apply under 0306(a). In addition, under 7H.0306(f), septic tanks and subsurface disposal fields relocated with public funds must meet the applicable ocean hazard setback. If private funds are used, septic tanks and subsurface disposal fields shall not be replaced or relocated within the public trust areas of ocean beaches as defined in G.S. 77-20. Under this statute, Ocean Beaches are defined as “...*the area adjacent to the ocean and ocean inlets that is subject to public trust rights. This area is in constant flux due to the action of wind, waves, tides, and storms and includes the wet sand area of the beach that is subject to regular flooding by tides and the dry sand area of the beach that is subject to occasional flooding by tides, including wind tides other than those resulting from a hurricane or tropical storm. The landward extent of the ocean beaches is established by the common law as interpreted and applied by the courts of this State. Natural indicators of the landward extent of the ocean beaches include, but are not limited to, the first line of stable, natural vegetation; the toe of the frontal dune; and the storm trash line.*”

Using this definition will allow the Division to address areas where the siting of septic tanks and subsurface drain fields often become problematic, most notably on the wet sand beach that is subject to regular flooding and the dry sand beach that is subject to irregular flooding. It will also allow the Division to make allowances for areas impacted by hurricanes and tropical storms, where septic systems may be damaged by overwash or burial of the vegetation line, but can still be repaired or relocated so as not to affect their function or impact the public trust area. Addressing this factor (storm overwash) was one of the primary comments received by the Division. Staff is also proposing an amendment to require that when structures are relocated, all debris and ancillary structures be removed. It has been the Division’s experience that old infrastructure, including septic tanks, are not always removed upon the relocation/removal of a primary structure.

Contrary to what was proposed at the November meeting, Staff is not proposing amending 7J .0210, the Commission’s rules regarding the repair (no CAMA permit required) versus replacement of existing structures (CAMA permit required) based on whether or not the cost to repair exceeds 50% of the market value of a non-water dependent structure. As stated earlier, if a septic tank or subsurface drain field must be replaced, a CAMA permit will be required.

I look forward to discussing this proposal at our upcoming meeting in Ocean Isle Beach.

15A NCAC 07H .0305 DEFINITION AND DESCRIPTION OF LANDFORMS

This Rule describes natural and man-made features that are found within the ocean hazard area of environmental concern.

- (1) Ocean Beaches. Ocean beaches are lands consisting of unconsolidated soil materials that extend from the mean low water line landward to a point where either:
 - (a) the growth of vegetation occurs; or
 - (b) a distinct change in slope or elevation alters the configuration of the landform, whichever is farther landward.
- (2) Nearshore. The nearshore is the portion of the beach seaward of mean low water that is characterized by dynamic changes both in space and time as a result of storms.
- (3) Primary Dunes. Primary dunes are the first mounds of sand located landward of the ocean beaches having an elevation equal to the mean flood level (in a storm having a one percent chance of being equaled or exceeded in any given year) for the area plus six feet. Primary dunes extend landward to the lowest elevation in the depression behind that same mound of sand commonly referred to as the "dune trough".
- (4) Frontal Dunes. The frontal dune is the first mound of sand located landward of ocean beaches that has stable and natural vegetation present.
- (5) Vegetation Line. The vegetation line refers to the first line of stable and natural vegetation, which shall be used as the reference point for measuring oceanfront setbacks. This line represents the boundary between the normal dry-sand beach, which is subject to constant flux due to waves, tides, storms and wind, and the more stable upland areas. The vegetation line is generally located at or immediately oceanward of the seaward toe of the frontal dune or erosion escarpment. The Division of Coastal Management or Local Permit Officer shall determine the location of the stable and natural vegetation line based on visual observations of plant composition and density. If the vegetation has been planted, it may be considered stable when the majority of the plant stems are from continuous rhizomes rather than planted individual rooted sets. Planted vegetation may be considered natural when the majority of the plants are mature and additional species native to the region have been recruited, providing stem and rhizome densities that are similar to adjacent areas that are naturally occurring. In areas where there is no stable and natural vegetation present, this line may be established by interpolation between the nearest adjacent stable natural vegetation by on-ground observations or by aerial photographic interpretation.
- (6) Pre-project Vegetation Line. In areas within the boundaries of a large-scale beach fill project, the vegetation line that existed within one year prior to the onset of project construction shall be defined as the "pre-project vegetation line". The "onset of project construction" shall be defined as the date sediment placement begins, with the exception of projects completed prior to the original effective date of this Rule, in which case the award of the contract date will be considered the onset of construction. A pre-project vegetation line shall be established in coordination with the Division of Coastal Management using on-ground observation and survey or aerial imagery for all areas of oceanfront that undergo a large-scale beach fill project. Once a pre-project vegetation line is established, and after the onset of project construction, this line shall be used as the reference point for measuring oceanfront setbacks in all locations where it is landward of the vegetation line. In all locations where the vegetation line as defined in this Rule is landward of the pre-project vegetation line, the vegetation line shall be used as the reference point for measuring oceanfront setbacks. A pre-project vegetation line shall not be established where a pre-project vegetation line is already in place, including those established by the Division of Coastal Management prior to the effective date of this Rule. A record of all pre-project vegetation lines, including those established by the Division of Coastal Management prior to the effective date of this Rule, shall be maintained by the Division of Coastal Management for determining development standards as set forth in Rule .0306 of this Section. Because the impact of Hurricane Floyd in September 1999 caused significant portions of the vegetation line in the Town of Oak Island and the Town of Ocean Isle Beach to be relocated landward of its pre-storm position, the pre-project line for areas landward of the beach fill construction in the Town of Oak Island and the Town of Ocean Isle Beach, the onset of which occurred in 2000, shall be defined by the general trend of the vegetation line established by the Division of Coastal Management from June 1998 aerial orthophotography.
- (7) Beach Fill. Beach fill refers to the placement of sediment along the oceanfront shoreline. Sediment used solely to establish or strengthen dunes shall not be considered a beach fill project under this Rule. A "large-scale beach fill project" shall be defined as any volume of sediment greater than 300,000 cubic yards or any storm protection project constructed by the U.S. Army Corps of Engineers.

- (8) Erosion Escarpment. The normal vertical drop in the beach profile caused from high tide or storm tide erosion.
- (9) Measurement Line. The line from which the ocean hazard setback as described in Rule .0306(a) of this Section is measured in the unvegetated beach area of environmental concern as described in Rule .0304(3) of this Section. In areas designated pursuant to Rule .0304(3)(b) of this Section, the Division of Coastal Management shall establish a measurement line by:
- (a) determining the average distance the pre-storm vegetation line receded at the closest vegetated site adjacent to the area designated by the Commission as the unvegetated beach AEC; and
 - (b) mapping a line equal to the average recession determination in Part (a) of this Subparagraph, measured in a landward direction from the first line of stable and natural vegetation line on the most recent pre-storm aerial photography in the area designated as an unvegetated beach AEC.
- (10) Notwithstanding 15A NCAC 7J .0210, for the purposes of this Section, the replacement of any septic tank or subsurface disposal field as referenced in 15A NCAC 18A .1935 located seaward of the Vegetation Line or Measurement line, whichever is applicable, requires a CAMA permit.

*History Note: Authority G.S. 113A-107; 113A-113(b)(6); 113A-124;
Eff. September 9, 1977;
Amended Eff. December 1, 1992; September 1, 1986; December 1, 1985; February 2, 1981;
Temporary Amendment Eff. October 10, 1996;
Amended Eff. January 1, 1997;
Temporary Amendment Eff. October 10, 1996 Expired on July 29, 1997;
Temporary Amendment Eff. October 22, 1997;
Amended Eff. April 1, 2020; April 1, 2016; April 1, 2008; August 1, 2002; August 1, 1998;
Readopted Eff. December 1, 2020;
Amended Eff. August 1, 2022.*

15A NCAC 07H .0306 GENERAL USE STANDARDS FOR OCEAN HAZARD AREAS

(a) In order to protect life and property, all development not otherwise specifically exempted or allowed by law or elsewhere in the Coastal Resources Commission's rules shall be located according to whichever of the following is applicable:

- (1) The ocean hazard setback for development shall be measured in a landward direction from the vegetation line, the pre-project vegetation line, or the measurement line, whichever is applicable.
- (2) The ocean hazard setback shall be determined by both the size of development and the shoreline long term erosion rate as defined in Rule .0304 of this Section. "Development size" is defined by total floor area for structures and buildings or total area of footprint for development other than structures and buildings. Total floor area includes the following:
 - (A) The total square footage of heated or air-conditioned living space;
 - (B) The total square footage of parking elevated above ground level; and
 - (C) The total square footage of non-heated or non-air-conditioned areas elevated above ground level, excluding attic space that is not designed to be load-bearing.Decks, roof-covered porches, and walkways shall not be included in the total floor area unless they are enclosed with material other than screen mesh or are being converted into an enclosed space with material other than screen mesh.
- (3) With the exception of those types of development defined in 15A NCAC 07H .0309(a), no development, including any portion of a building or structure, **including septic tanks or subsurface disposal fields as referenced in 15A NCAC 18A .1935**, shall extend oceanward of the ocean hazard setback. This includes roof overhangs and elevated structural components that are cantilevered, knee braced, or otherwise extended beyond the support of pilings or footings. The ocean hazard setback shall be established based on the following criteria:
 - (A) A building or other structure less than 5,000 square feet requires a minimum setback of 60 feet or 30 times the shoreline erosion rate, whichever is greater;
 - (B) A building or other structure greater than or equal to 5,000 square feet but less than 10,000 square feet requires a minimum setback of 120 feet or 60 times the shoreline erosion rate, whichever is greater;
 - (C) A building or other structure greater than or equal to 10,000 square feet but less than 20,000 square feet requires a minimum setback of 130 feet or 65 times the shoreline erosion rate, whichever is greater;
 - (D) A building or other structure greater than or equal to 20,000 square feet but less than 40,000 square feet requires a minimum setback of 140 feet or 70 times the shoreline erosion rate, whichever is greater;
 - (E) A building or other structure greater than or equal to 40,000 square feet but less than 60,000 square feet requires a minimum setback of 150 feet or 75 times the shoreline erosion rate, whichever is greater;
 - (F) A building or other structure greater than or equal to 60,000 square feet but less than 80,000 square feet requires a minimum setback of 160 feet or 80 times the shoreline erosion rate, whichever is greater;
 - (G) A building or other structure greater than or equal to 80,000 square feet but less than 100,000 square feet requires a minimum setback of 170 feet or 85 times the shoreline erosion rate, whichever is greater;
 - (H) A building or other structure greater than or equal to 100,000 square feet requires a minimum setback of 180 feet or 90 times the shoreline erosion rate, whichever is greater;
 - (I) Infrastructure that is linear in nature, such as roads, bridges, pedestrian access such as boardwalks and sidewalks, and utilities providing for the transmission of electricity, water, telephone, cable television, data, storm water, and sewer requires a minimum setback of 60 feet or 30 times the shoreline erosion rate, whichever is greater;
 - (J) Parking lots greater than or equal to 5,000 square feet require a setback of 120 feet or 60 times the shoreline erosion rate, whichever is greater;
 - (K) Notwithstanding any other setback requirement of this Subparagraph, construction of a new building or other structure greater than or equal to 5,000 square feet in a community with an unexpired static line exception or Beach Management Plan approved by the Commission in accordance with 15A NCAC 07J .1200 requires a minimum setback of 120 feet or 60 times the shoreline erosion rate in place at the time of permit issuance,

whichever is greater. The setback shall be measured landward from either the vegetation line or measurement line, whichever is farthest landward; and

- (L) Notwithstanding any other setback requirement of this Subparagraph, replacement of a structure with a total floor area no greater than 10,000 square feet shall be allowed provided that the structure meets the following criteria:
 - (i) the structure is in a community with an unexpired static line exception, Beach Management Plan approved by the Commission, or was originally constructed prior to August 11, 2009;
 - (ii) the structure as replaced does not exceed the original footprint or square footage;
 - (iii) it is not possible for the structure to be rebuilt in a location that meets the ocean hazard setback criteria required under Subparagraph (a)(5) of this Rule;
 - (iv) the structure as replaced meets the minimum setback required under Part (a)(5)(A) of this Rule; a minimum setback of 60 feet or 30 times the shoreline erosion rate, whichever is greater; and
 - (v) the structure is rebuilt as far landward on the lot as feasible.
- (4) If a primary dune exists in the AEC, on or landward of the lot where the development is proposed, the development shall be landward of the applicable ocean hazard setback and the crest of the primary dune. For existing lots where setting the development landward of the crest of the primary dune would preclude any practical use of the lot, development may be located oceanward of the primary dune. In such cases, the development may be located landward of the ocean hazard setback, and shall not be located on or oceanward of a frontal dune. For the purposes of this Rule, "existing lots" shall mean a lot or tract of land that, as of June 1, 1979, is specifically described in a recorded plat and cannot be enlarged by combining the lot or tract of land with a contiguous lot or tract of land under the same ownership.
- (5) If no primary dune exists, but a frontal dune does exist in the AEC on or landward of the lot where the development is proposed, the development shall be set landward of the frontal dune or ocean hazard setback, whichever is farthest from the vegetation line, pre-project vegetation line, or measurement line, whichever is applicable.
- (6) Structural additions or increases in the footprint or total floor area of a building or structure represent expansions to the total floor area and shall meet the setback requirements established in this Rule and 15A NCAC 07H .0309(a). New development landward of the applicable setback may be cosmetically but not be structurally attached to an existing structure that does not conform with current setback requirements.
- (7) Established common law and statutory public rights of access to and use of public trust lands and waters in ocean hazard areas shall not be eliminated or restricted, nor shall such development increase the risk of damage to public trust areas. Development shall not encroach upon public accessways, nor shall it limit the intended use of the accessways.
- (8) Development setbacks in areas that have received large-scale beach fill as defined in 15A NCAC 07H .0305 shall be measured landward from the pre-project vegetation line as defined in this Section, unless an unexpired static line exception or Beach Management Plan approved by the Commission has been approved for the local jurisdiction by the Coastal Resources Commission in accordance with 15A NCAC 07J .1200.
- (9) A local government, group of local governments involved in a regional beach fill project, or qualified "owners' association" as defined in G.S. 47F-1-103(3) that has the authority to approve the locations of structures on lots within the territorial jurisdiction of the association and has jurisdiction over at least one mile of ocean shoreline, may petition the Coastal Resources Commission for approval of a "Beach Management Plan" in accordance with 15A NCAC 07J .1200. If the request for a Beach Management Plan is approved, the Coastal Resources Commission shall allow development setbacks to be measured from a vegetation line that is oceanward of the pre-project vegetation line under the following conditions:
 - (A) Development meets all setback requirements from the vegetation line defined in Subparagraphs (a)(1) and (a)(3) of this Rule;
 - (B) Development setbacks shall be calculated from the shoreline erosion rate in place at the time of permit issuance;
 - (C) No portion of a building or structure, including roof overhangs and elevated portions that are cantilevered, knee braced, or otherwise extended beyond the support of pilings or

footings, extends oceanward of the landward-most adjacent habitable building or structure. The alignment shall be measured from the most oceanward point of the adjacent building or structure's roof line, including roofed decks, if applicable. An "adjacent" property is one that shares a boundary line with the site of the proposed development. When no adjacent buildings or structures exist, or the configuration of a lot, street, or shoreline precludes the placement of a building or structure in line with the landward-most adjacent building or structure, an average line of

construction shall be determined by the Director of the Division of Coastal Management based on an approximation of the average seaward-most positions of the rooflines of adjacent structures along the same shoreline, extending 500 feet in either direction. If no structures exist within this distance, the proposed structure must meet the applicable setback from the Vegetation Line and will not be held to the landward-most adjacent structure or an average line of structures.

(D) With the exception of swimming pools, the exceptions defined in Rule .0309(a) of this Section shall be allowed oceanward of the pre-project vegetation line.

(b) Development shall not cause irreversible damage to historic architectural or archaeological resources as documented by the local historic commission, the North Carolina Department of Natural and Cultural Resources, or the National Historical Registry.

(c) Mobile homes shall not be placed within the high hazard flood area unless they are within mobile home parks existing as of June 1, 1979.

(d) Development proposals shall incorporate measures to avoid or minimize adverse impacts of the project. These measures shall be implemented at the applicant's expense and may include actions that:

- (1) minimize or avoid adverse impacts by limiting the magnitude or degree of the action;
- (2) restore the affected environment; or
- (3) compensate for the adverse impacts by replacing or providing substitute resources.

(e) Prior to the issuance of any permit for development in the ocean hazard AECs, there shall be a written acknowledgment from the applicant to the Division of Coastal Management that the applicant is aware of the risks associated with development in this hazardous area and the limited suitability of this area for permanent structures. The acknowledgement shall state that the Coastal Resources Commission does not guarantee the safety of the development and assumes no liability for future damage to the development.

(f) The relocation or elevation of structures shall require permit approval.

- (1) ~~Structures~~ Structures, including septic tanks and subsurface disposal fields as referenced in 15A NCAC 18A .1935, relocated landward with public funds shall comply with the applicable ocean hazard setbacks and other applicable AEC rules.
- (2) Structures relocated landward entirely with non-public funds and that do not meet current applicable ocean hazard setbacks may shall be relocated the maximum feasible distance landward of its present location. Septic tanks and subsurface disposal fields as referenced 15A NCAC 18A .1935 shall not be relocated or replaced within public trust areas of ocean beaches as defined in G.S. 77-20. oceanward of the primary structure.
- (3) Existing structures shall not be elevated if any portion of the structure is located seaward of the vegetation line.
- (4) When structures are relocated within the Ocean Hazard Area of Environmental Concern, all remaining debris, ancillary structures, or infrastructure shall be removed from the original location.

(g) Permits shall include the condition that any structure shall be relocated or dismantled when it becomes imminently threatened by changes in shoreline configuration as defined in 15A NCAC 07H .0308(a)(2)(B). Any such structure shall be relocated or dismantled within eight years of the time when it becomes imminently threatened, and in any case upon its collapse or subsidence. However, if natural shoreline recovery or beach fill takes place within eight years of the time the structure becomes imminently threatened, so that the structure is no longer imminently threatened, then it need not be relocated or dismantled. This permit condition shall not affect the permit holder's right to seek authorization of temporary protective measures allowed pursuant to 15A NCAC 07H .0308(a)(2).

*History Note: Authority G.S. 113A-107; 113A-113(b)(6); 113A-124; Eff. September 9, 1977;
Amended Eff. December 1, 1991; March 1, 1988; September 1, 1986; December 1, 1985;
RRC Objection due to ambiguity Eff. January 24, 1992;
Amended Eff. March 1, 1992;
RRC Objection due to ambiguity Eff. May 21, 1992;
Amended Eff. February 1, 1993; October 1, 1992; June 19, 1992;
RRC Objection due to ambiguity Eff. May 18, 1995;
Amended Eff. August 11, 2009; April 1, 2007; November 1, 2004; June 27, 1995;
Temporary Amendment Eff. January 3, 2013;*

*Amended Eff. September 1, 2017; February 1, 2017; April 1, 2016; September 1, 2013;
Readopted Eff. December 1, 2020;
Amended Eff. August 1, 2022; December 1, 2021.*

Article 3.

Lands Adjoining Coastal Waters.

§ 77-20. Seaward boundary of coastal lands.

(a) The seaward boundary of all property within the State of North Carolina, not owned by the State, which adjoins the ocean, is the mean high water mark. Provided, that this section shall not apply where title below the mean high water mark is or has been specifically granted by the State.

(b) Notwithstanding any other provision of law, no agency shall issue any rule or regulation which adopts as the seaward boundary of privately owned property any line other than the mean high water mark. The mean high water mark also shall be used as the seaward boundary for determining the area of any property when such determination is necessary to the application of any rule or regulation issued by any agency.

(c) For purposes of this Article, "agency" means any part, branch, division, or instrumentality of the State; any county, municipality, or special district; or any commission, committee, council, or board established by the State, or by any county or municipality.

(d) The public having made frequent, uninterrupted, and unobstructed use of the full width and breadth of the ocean beaches of this State from time immemorial, this section shall not be construed to impair the right of the people to the customary free use and enjoyment of the ocean beaches, which rights remain reserved to the people of this State under the common law and are a part of the common heritage of the State recognized by Article XIV, Section 5 of the Constitution of North Carolina. These public trust rights in the ocean beaches are established in the common law as interpreted and applied by the courts of this State.

(e) As used in this section, "ocean beaches" means the area adjacent to the ocean and ocean inlets that is subject to public trust rights. This area is in constant flux due to the action of wind, waves, tides, and storms and includes the wet sand area of the beach that is subject to regular flooding by tides and the dry sand area of the beach that is subject to occasional flooding by tides, including wind tides other than those resulting from a hurricane or tropical storm. The landward extent of the ocean beaches is established by the common law as interpreted and applied by the courts of this State. Natural indicators of the landward extent of the ocean beaches include, but are not limited to, the first line of stable, natural vegetation; the toe of the frontal dune; and the storm trash line. (1979, c. 618, s. 2; 1998-225, s. 5.1.)

§§ 77-21 through 77-29. Reserved for future codification purposes.